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Branch of the Industry

Daily News

CARS SHOP TOO.

N PARTS ACCESSORIES TIRES

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PUBLIC LIBRARY OCT - 1931 DETROIT

AUGUST CAR-TRUCK OUTPUT TOTALED 191,741 VEHICLES

Compares With 222,710 in Previous Month and 234,160 in August, 1930, According to Department of Commerce Figures

WASHINGTON, Sept. 29.—The output of motor vehicles of all types in August in both American and Canadian factories totaled 191,741, as compared to 222,710 in the previous month and 234,160 in August, 1930, according to figures compiled by the Department of Commerce.

For the first three-quarters of this year production in both countries amounted to 2,053,478 units, as compared to 2,819,146 in the corresponding period of 1930.

Passenger car production last month in the United States totaled 155,321, as against 183,993 in July, the latter being slightly in excess of the total for August of last year. Truck manufacture in August dropped to 31,772 units, the lowest of the year thus far, and as against 34,317 in July and 40,450 in August of last year.

Conversely, production of both passenger carse and trucks in Canadian factories during August increased slightly over the previous month, with a total of 4,544 units, as against 4,220 in July. The total output for August, 1930, however, was 9,792 units.

For the eight months' period of this year the passenger car output in Canadian plants, was 59,388, as against 108,861 in the same period of last year, while truck manufacture totaled 15,468, as compared to 21,804.

The following figures are based

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THREE INSURANCE MEASURES FILED IN MASSACHUSETTS

Boston, Mass., Sept. 29.—Three insurance measures have been filed with the clerk of the House of Representatives. One calls for repeal of the present compulsory automobile insurance act and establishment of a financial responsibility law to govern automobile accidents; a second calls for creation of a motor vehicle accident commission under the present law, and the third calls for investigation by a special commission relative to the creation and definition of the powers and duties of a motor vehicle accident commis-

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FEDERAL ADDS DUAL DRIVE SIX WHEELER

Detroit, Sept. 29.—Following the introduction of the single drive three-ton six-wheeler over a year ago, the Federal Motor Truck Company now presents a dual drive six-wheeler, with six-wheel hydraulic brakes, of the same capacity, available in four and six cylinder engines, at $1,350 and $1,450, respectively, for standard chassis f. o. b. Detroit.

The four-cylinder model is supplied in 140-inch and 164-inch wheel bases. The six-cylinder chassis in 145-inch and 169-inch wheel bases. Aside from the dual drive feature, this new Federal is basically the same as the single drive six-wheeler. The dual drive six-wheel feature is designed and engineered into the chassis as an integral part of the vehicle. Many exclusive and patented features are claimed for this truck.

Unusual traction is claimed for this dual drive model, which is designed to provide economical handling of relatively large loads with

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...Operators' Views Stressed By Hill at N. A. M. B. O. Session

Association's President Reviews Development of Regulatory Legislation and Finds Operators Themselves Greatest Proponents

(Special Dispatch)

ATLANTIC CITY, N. J., Sept. 29. — The fifth annual convention of the National Association of Motor Bus Opreators opened yesterday for a two days' session. The meetings are being held at the Ambassador simultaneously with those of the American Electric Railway Association, the latter taking place at the Municipal Auditorium.

A. M. Hill, president of the National Association of Bus Operators, delivered the opening address, "The Motor Bus Operators' Viewpoint," a discussion of the motor bus tax and regulatory situation.

"In reviewing the development of motor bus regulatory legislation throughout the United States," Mr. Hill said, "it is our conclusion that almost without exception the motor bus operators themselves have been the greatest proponents of regulation. Starting in 1914, when the Pennsylvania Public Service Commission was given authority to regulate bus transportation in that state, bus operators the country over constantly worked for regulation until in 1929 every state in the country except Delaware had complete control of the operation of bus lines. Delaware is excepted because in that state there is no provision for state-wide regulation of any utility."

Despite this, unofficial statements have been circulated throughout the country during the past year to the effect that motor buses of huge proportions were using public highways free from any regulation as to size, weight or safety requirements and free from tax obligations. . The statutory requirements of the various states prove the falsity of these statements, Mr. Hill stated.

Continuing, the speaker said that from his review of the motor bus regulatory requirements in the various state statutes that it is difficult to believe that futher amendment of the present laws would in

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CHRYSLER SALES AND PRODUCTION GAIN IN AUGUST

Detroit, Sept. 29.—Chrysler Corporation's production of motor cars in August of this year was 132 per cent. greater than in the corresponding month of 1930, as compared with a decline of 16 per cent. for the industry as a whole and a gain of 2 per cent. for the industry other than Ford, the corporation announced yesterday.

The company's August production

(Continued on Page 2)

MOTOR INDUSTRY'S PATENT PROBLEMS INCREASE DAILY

New York, Sept. 29.—That the depression has resulted in greater interest in new automotive inventions and increased activity in the developments of improvements for motor vehicles is indicated in the report of George C. Arvedson, manager of the Patents Department of the N. A. C. C.

The extraordinary number of new

(Continued on Page 2)

H. M. STEPHENS' BODY RECOVERED FROM RIVER

Detroit, Sept. 29.—The body of Hamilton M. Stephens, former Western sales manager of the Oakland Motor Car Company of Pontiac, was recovered from the river yesterday by the border patrol.

Suicide is the reported cause of the death. Previous to his Oakland connection, Mr. Stephens had been general sales manager of Cadillac.

Activity Among Parts Makers May Indicate Revival of Trade

By CHRIS SINSABAUGH

DETROIT, Sept. 29.—There are certain of the leading parts plants in the automobile industry, the business of which is so large and the variety of prominent accounts which they serve is so outstanding that the opinions and forecasts from their executive officers are of considerable consequence.

Such an organization is the Kelsey-Hayes Wheel Corporation. An encouraging note from this key institution has just been released by Perry Williams, general sales manager of Kelsey-Hayes, one of the largest manufacturers in the world of motor car wheels.

Sizing up the viewpoint of his company on trade conditions in a most heartening and spirited manner, Mr. Williams says: "We are looking ahead with a considerable degree of assurance and increased confidence for improved business within the industry.

"Today we have more accounts than ever before with whom we are doing business and these comprise some of the very largest companies in the industry.

"Daily specifications for delivery are being released to us by these manufacturers and our present production volume on the new and present models is highly satisfactory.

"And by the way, there never has been a time within the history of the industry when so much attention has been focused on the wheel equipment of a motor car as at this present time. It has recently been realized that wheels can be more than merely a part of the running gear of an automobile.

"By expert designing they can be made veritable beauty spots in a car's appearance and as a result the motor care wheel of today is in it-

(Continued on Page 6)

Late News Flashes

Detroit, Sept. 29.—Stockholders of the Detroit Motorbus Company at a special meeting voted to leave to the discretion of the directors the tentative proposal of the City of Detroit to purchase four parcels of real estate for $616,000 and thirty-two buses at $232,000. Directors will meet shortly to consider the matter and will not take action on the dividend payable October 15 until a decision has been reached.

* * *

Tulsa, Sept. 29.—Daily average production of crude in the United States in the week ended September 26 was 2,157,923 barrels, a decrease of 21,671 barrels from the preceding week, according to the Oil and Gas Journal.

* * *

Austin, Tex., Sept. 29.—The Texas legislature has passed a bill providing that the state shall assume the $6,200,000 annual payments of interest and principal on county and district road bond issues outstanding. The measure sets aside one cent of the four cent a gallon sales tax on gasoline to provide funds for this purpose.

Reeves Sees Expansion Of Bus Industry; Urges Courtesy as Keynote

ATLANTIC CITY, N. J., Sept. 29.—More courtesy, improved service, and lower taxes, as factors upon which the continued expansion of the nation's bus transportation industry depends, were discussed today by Alfred Reeves, general manager of the National Automobile Chamber of Commerce, in a talk, "Getting On With the Public," at the convention of the National Association of Motor Bus Operators in the Hotel Ambassador.

"With the bus industry already employing nearly 100,000 vehicle units, and with an increasing demand for improved service rising from those who favor this form of travel, which conveys them on rubber tires through 'the front yards of the nation,' foresighted bus operators are recognizing the wisdom of considering and anticipating their common problems," declared Mr. Reeves.

"Bus operators should insist that their employeers remember that private motorists and other highway users have, at least, equal rights on the roads. Such offenses as overspeeding and overcrowding must be eliminated.

"Discourtesy or recklessness on the part of an individual bus driver is certain to bring heavy penalties which may hamper the continued growth of an industry that has already achieved an important place

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August Car-Truck Output Totaled 191,741 Vehicles

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on reports received by the Department of Commerce from 144 manufacturers in the United States, 42 making passenger cars and 113 making trucks (11 making both passenger cars and trucks). Canadian figures were furnished by the Dominion Bureau of Statistics:

UNITED STATES

1929	Total	Passenger Cars	Trucks	†Taxicabs
January	401,037	345,545	53,428	2,064
February	466,418	404,063	60,247	2,108
March	585,455	511,577	71,799	2,079
April	621,910	535,878	84,346	1,686
May	604,691	514,863	88,510	1,318
June	545,932	451,371	93,183	1,378
July	500,840	424,944	74,842	1,054
August	498,628	440,780	56,808	1,040
Total (eight months)	4,224,911	3,629,021	583,163	12,727
September	415,912	363,471	51,576	865
October	380,017	318,462	60,687	868
November	217,573	167,846	48,081	1,646
December	120,007	91,011	27,513	1,483
Total (year)	5,358,420	4,569,811	771,020	17,589
1930				
January	273,221	232,848	39,406	967
February	330,414	279,165	50,398	851
March	396,388	329,501	65,466	1,421
April	444,024	372,446	71,092	486
May	420,027	360,928	58,659	440
June	334,506	285,473	48,570	463
July	265,533	221 829	43,328	376
August	224,368	183,532	40,450	386
Total (eight months)	2,688,481	2,265,722	417,369	5,390
September	220,649	175,496	44,223	930
October	154,401	113,226	40,593	582
November	136,754	100,532	35,613	609
December	155,701	120,833	33,443	1,425
Total (year)	3,355,986	2,775,809	571,241	8,936
1931				
January	171,846	137,805	33,531	512
February	219,940	179,890	39,521	529
March	276 405	230,834	45,161	410
April	336,939	286,252	50,022	665
May	317,163	271,135	45,688	340
June	*250,640	*210,016	*40,264	360
July	*218,490	*183,993	*34,317	180
August	187,197	155,321	31,772	104
Total (eight months)	1,978,622	1,655,246	320,276	3,100

CANADA

1929	Total	Passenger Cars	Trucks
January	21,501	17,164	4,337
February	31,287	25,584	5,703
March	40,621	32,833	7,788
April	41,901	34,392	7,509
May	31,559	25,129	6,430
June	21 492	16,511	4,981
July	17,461	13,600	3,861
August	14,214	11,037	3,177
Total (eight months)	220,036	176,250	43,786
September	13,817	10,710	3,107
October	14,523	8,975	5,548
November	9,424	7,137	2,287
December	5,495	4,426	1,069
Total (year)	263,295	207,498	55,797
1930			
January	10,388	8,856	1,532
February	15,548	13,021	2,527
March	20,730	17,165	3,565
April	24,257	20,872	3,385
May	24 672	21,251	3,421
June	15,090	12,194	2,896
July	10,188	8,556	1,632
August	9,792	6,946	2,846
Total (eight months)	130,665	108,861	21,804
September	7,957	5,623	2,334
October	4,541	3,206	1,335
November	5,407	3,527	1,880
December	5,622	4,225	1,397
Total (year)	154,192	125,442	28,750
1931			
January	6,496	4,552	1,944
February	9,871	7,529	2,342
March	12,993	10,483	2,510
April	17,159	14,043	3,116
May	12,738	10,621	2,117
June	6,835	5,583	1,252
July	4,220	3,151	1,069
August	4,544	3,426	1,118
Total (eight months)	74,856	59,388	15,468

*Revised.
†Includes only factory-built taxicabs, and not private passenger cars converted into vehicles for hire.

Reo's New 1½-Ton Speed Wagon at $625 gives Reo dealers a tremendous advantage in the lowest price truck field. If you would like to share in this volume selling, mail the coupon. It is today's most logical step toward immediate profits.

$625

REO MOTOR CAR CO., Lansing, Michigan ADN930
Please send me at once—either by letter or through your representative—details of the Reo Special Truck Franchise.

Name_____

Address_____
(City) (State)

Four-cylinder $625, Six-cylinder $725
Chassis f. o. b. Lansing, Michigan
Dual Wheels $25 Extra

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Mr. Arvedson disclosed that a satisfactory settlement has been made by the chamber, making available to its members the use of the anti-shimmy spring shackle patents.

CHRYSLER SALES AND PRODUCTION GAIN IN AUGUST

(Continued from Page 1)

showed a gain of 12 per cent. over the preceding month, as compared with a 12 per cent. decline for the industry as a whole and a decline of 13 per cent. by the industry, excluding Ford.

Chrysler production in the first eight months of this year was only 1 per cent. below that of the similar period of 1930.

Compared with the five-year average from 1926 to 1930, inclusive, Chrysler's production in August was off 2 per cent.

The corporation points out that actual sales of passenger cars ordinarily reach a peak in April or May, but due to the sales of the new Plymouths, the August weekly retail deliveries of Chrysler-built cars ran 33 per cent. above the April total and were being delivered at about the same rate as in 1927, 1928 and 1929, with a gain of about 75 per cent. over the retail deliveries in 1930. Dealer stocks are no higher than last year at this time.

CHICAGO EMPLOYMENT DECLINED IN AUGUST

Chicago, Sept. 29.—Further declines in pay rolls and the number of employees were reported for the month of August by 2,758 industrial establishments in the Seventh Federal Reserve District. Wage earners were fewer by 3.1 per cent., and pay rolls were down 1.2 per cent. in August as compared with July.

The number of employees in the manufacturing group dropped 3.3 per cent., while pay rolls were down by 0.8 per cent., indicating that lay-offs were more prevalent than wage reductions. The declines in the non-manufacturing group were more nearly equal, being 2.5 per cent. in employment and 2.2 per cent. in pay rolls.

AUTOMOBILE FATALITIES GAIN IN FIRST 8 MONTHS

Chicago, Sept. 29.—Automobile accidents claimed 19,950 lives in the United States in the first eight months of 1931, as compared with 19,350 fatalities in the like period last year, according to the National Safety Council. The year's death toll was estimated at 35,000, an increase of 2,000 over last year.

Hartford, Conn., with a population of 164,000, was the largest city in the country to report no fatalities in August.

NEW JERSEY A. T. A. TO HOLD SESSION TOMORROW

Newark, N. J., Sept. 29.—A special regional meeting of the New Jersey Automotive Trade Association, the state organization, will be held in Newark, Thursday morning, when the state directors will map out their legislative program for the coming winter. The directors will later be the guests of the Newark Automobile Trade Association trustees at their regular monthly meeting at noon.

* *

erns, Poet

* * *

Chris Sinsabaugh—Detroit Editor

NOW you can go underground from the New Center Building at the corner of 2d and Lothrop, catercorner across the street from the Fisher Building, to the General Motors Building on West Grand Boulevard, passing through the Fisher Building en route. A tunnel connecting the three structures is open to traffic this week, which means that the Fisher brothers' New Center Building, which is part of this little motor city, has been completed and tenants already are moving in. The New Center has 256 offices, is ten stories high in the center and seven on the wings.

Being part of the automobile group, it is but natural that it should attract concerns identified with this industry. Among those that can be thus classified and which have taken space are the B. F. Goodrich Company, Moto Meter Gauge and Equipment Corporation, L. C. Chase & Co., automobile trimmings; Howard A. Smith and Robert Mantell, Jr., automotive materials; National Automatic Tool Company, tool machinery; General Cable Corporation, electrical equipment; Harold V. Rohm, automobile specialties; John Bath & Co., taps and gauges; William M. Perrett, Jr., automotive materials; Grace & Holliday, advertising agency handling several big automobile accounts, have space there, but will not move from the Fisher Building for several weeks.

* * *

ANOTHER new neighbor of ours is the American Woolen Company, which has opened its Detroit office in Room 7-244, General Motors Building, which is in charge of E. C. Kavanagh, with whom is associated Elmer H. Heck. A staff of technical experts and direct factory representatives will also be maintained in Detroit. The American Woolen Company is making a bid for automotive business with a line of broadcloth, Bedford cords and other types of automobile fabrics. Only recently the company came into our field, seeking factory business direct. It is a concern with forty-seven mills, with approximately 10,000 looms and its assets are placed at more than $110,000,000.

* * *

THE column today seems to run along a building vein, so we will include something about Hupmobile's new million dollar laboratory, which is now in operation. It is built of brick and concrete upon a steel superstructure, eight stories high. The executive offices of the engineering department, the drafting room and blue print rooms, body display and body moulding rooms and the chemical laboratory are on the eighth floor. On the seventh flor are the body engineering, experimental body shop and other similar features. The first floor is devoted to the experimental machine shop, experimental assembly room and engineering garage.

In the basement are the new engineering laboratory, the cold room and the "gigolo." The cold room is capable of a temperature range of from summer heat down to 40 degrees below zero and colder. The "gigolo" is a machine that racks and twists bodies and frames so as to show up weak spots.

* * *

JUST one bit more of aftermath of the American Legion convention and we are through. This is written to give due credit to John B. Terns of Campbell-Ewald, who is the author of that heart-throbbing poem Buick used in a full-page advertisement in the Detroit Times, welcoming the Legion to Detroit. Others than this column conductor thought it good, for Floyd Gibbons grabbed it and read it over the air in one of his radio addresses, giving Buick and Terns credit.

It's too long to print in its entirety in this column, but let's read you the last paragraph:

"Ah, no, we cannot honor you
By aught that we may say or do.
But deep within our souls abide
A glowing joy, a growing pride
In each staunch member of your band
And in ideals for which you stand.
Your deeds with love our thoughts endow.
How then, are we to greet you now?

"Brave Legion—as your conclave starts—
Here are our hands! Here are our hearts."

Reeves Sees Expansion In Bus Line Operation

(Continued from Page 1)

in the nation's transportation network.

"The constructive work which your association has done to raise the standard of courtesy and safety on the highways deserves the highest praise and should be continued as one of the most important activities in your program.

"In so far as the issue of bus taxation arises in the public forum, operators, whether they be identified with railroads, trolley systems or private corporations, should expect to pay fair, but not confiscatory, taxes.

"Regulation of a character that could only result in strangulation of the bus industry, with the public the inevitable loser, should be rigorously opposed.

"There should be fair competition for the favor of the traveling public, with an efficient co-ordination of all forms of transportation.

"Furnishing the public a service which comes between the railroad and the private automobile, the modern bus still has many fields of service which have not been fully appreciated.

"Anyone who understands America's transportation trends can readily foresee future developments of this transport system, embracing buses with sleeping compartments, dining and de luxe club car facilities, noise-proof and air-control equipment, organized on nation-wide networks, in some cases using abandoned railroad tracks, and terminal facilities consisting of garages on the lower floor or basement, with waiting rooms and hotel facilities on the upper floors. The effect of this in stimulating rural and suburban life is almost incomprehensible.

"By making highway travel within the reach of those who cannot afford or do not choose to operate their own automobiles, the bus is repaying the public's tremendous investment in highways. More than that, it is continuing to pay a large share of the cost of building and maintaining the roads that it uses.

"Last year the tax contribution of the bus industry aggregated more than $36,000,000, or an average of nearly $800 per vehicle.

"During the past years the engineers of the automotive industry, aided by the criticisms of the operators and users, have made constant improvements in bus design.

"The present-day bus, with balloon tires, heavy springs and comfortable seats, provides adequate means of travel for citygoer or cross-country traveler. That safety, too, has been a constant consideration is evidenced in the rugged frames, airbrakes and other modern devices introduced for the protection of the riding public.

"No matter what the requirements or preferences of the passenger may be—whether for a vehicle for school purposes, a caravan for traveling conventions, an overnight sleeping car—the bus engineer is on the job, and today many large operators have equipment suitable for all kinds of travel.

"With the improvement of highways and in bus units, American travelers have been afforded an opportunity to ride with maximum comfort at minimum cost—a cost, incidentally, which has been greatly lowered by fare reductions, which, in turn, have expanded the volume of business and created public good will.

"As I travel around the country, I hear many complaints from private motorists who are concerned over the abuse of road courtesy by bus drivers. Sometimes these criticisms deal with the problem of overspeeding, or again, the complaint is that some mannerless driver has crowded a motorist off the road.

"Frequently these charges are exaggerated, but the driver of a large vehicle should always try to remember the effect which his sudden appearance over the top of a hill, particularly at night, might have upon a nervous driver in a small car.

"After all, the private automobilist is the dominant figure in highway transport, and he will continue to be for a long time.

"As our great program of street and highway development is accelerated along with the elimination of grade crossings, we may expect new and profitable additions to bus services. Similarly, the sight-seeing vehicle grows in popularity as our restless population roams around our cities.

"The development of bus services brings with it a demand for many small services from the using public.

"Where do I go to get the bus? Can I buy through tickets? Where can I sit while I am waiting for the coach to come along, especially on bad days? Where can I get a time-table to show me connections and leaving time? What will I see along the road? Will the food be good? How about the hotels? Can I carry luggage? How much?

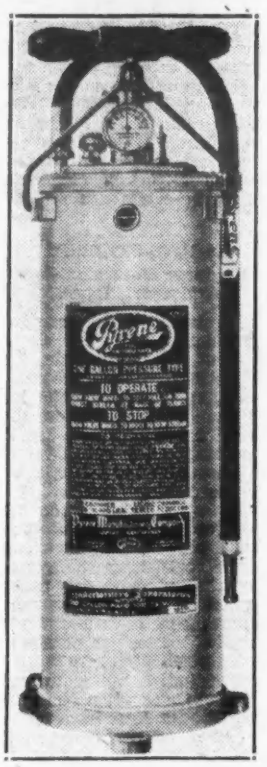
"These are a few of the questions selected at random which are in the minds of those who are considering travel by bus. Many of the larger companies are taking care of matters like these, with folders and advertising.

"All should, because it is in these little particulars that the bus company gets its reputation for good or bad service. Basically, the bus, like the truck, is simply an agency in transportation. Whatever charges are attendant upon its operation must be passed along to the public.

"Consequently, while every vehicle should pay a fair tax for the use of the highways over which it travels, its levies should be limited to such payments. Furthermore, the funds collected by the state from gasoline and license taxes should be used exclusively for road development, because they are special taxes paid in return for special benefits—road improvements, and those alone.

"Because of its mobility, the bus may be an element in local transportation and still cross state lines. Or it may be traversing several states. Given an adequate tax in one state, the vehicle should be granted free travel in other states. Nothing shall be done to interfere with the free flow of interestate commerce, is the spirit of the Constitution. Heavy taxes lodged upon vehicles in each state of a series through which buses have occasion to pass are no more justified than would be heavy taxes within each county."

PYRENE EXHIBITS NEW BUS FIRE EXTINGUISHER



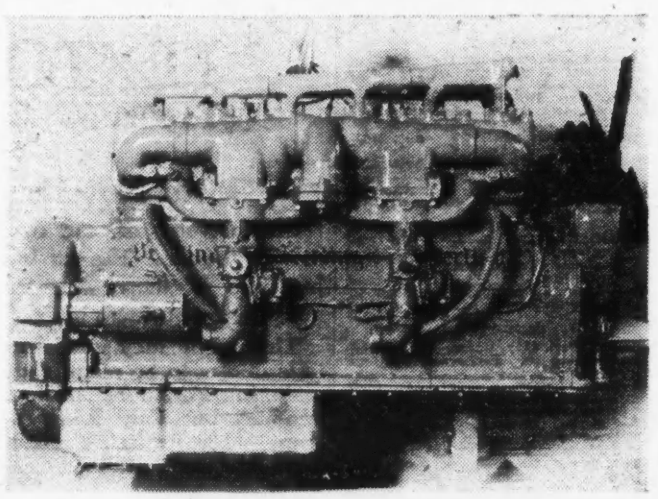
The Pyrene Manufacturing Company is making a complete display of all types of hand fire extinguishers and engines, also automatic fire protection, and a complete display of automobile, truck and bus tire chains at the A. E. R. A. convention in Atlantic City.

A feature of the exhibit is a new chain which has been developed for automobile bus use, and a new fire extinguisher recently developed, known as the Pyrene one-gallon pressure type fire extinguisher.

This extinguisher is gradually taking the place of the one-quart and one-and-one-half-quart truck-type Pyrene fire extinguishers.

Representatives in attendance are as follows: E. G. Weed, vice-president in charge of sales and advertising; G. H. Boucher, assistant general sales manager, and J. P. Maloney, assistant general sales manager.

Sterling Exhibits New Engine



The Sterling Engine Company is exhibiting at Atlantic City the Sterling Petrel bus and truck engine, rated 150 net horsepower at 1,700 revolutions per minute. It has a bore of 5¼ inches, 6-inch stroke, 779 cubic inches piston displacement. This motor is being used in large trucks, handling over twelve tons of freight; 4.9 miles per gallon, and in the Pickwick coaches, 53 passengers, 5.4 miles per gallon—both vehicles averaging 100 miles per quart of oil. The Sterling Petrel is an adoption of a 225-horsepower engine with modified compression, assuring longer life in heavy duty service. The trucks are making from 40 to 49 miles per hour, and the large buses up to 78 miles per hour. The mechanical features include a chrome nickel molybdenum steel drop forged crankshaft with seven bearings and twelve counterweights, dynamically balanced; oil cooler and filter, two carburetors, pressure lubrication to all active parts of the motor, including camshaft bearings, timing gears and piston pins and other advanced engineering characteristics.

Also on display is the Sterling Viking eight-cylinder railcar engine, which is the largest and most powerful engine of its size built. This engine, which is eight-inch bore, nine-inch stroke, develops 565 horsepower at 1,200 revolutions per minute.

The exhibit is in charge of C. A. Criqui, Jr., vice-president, and M. E. Mutchler, general sales manager.

MACK EXHIBITS BUSES, ENGINES AT A. E. R. A. SHOW

Two Transit-type Model BTs, of the International Motors Co., one a forty-four-passenger, center-door type, and the other a rear-door type, are part of the A. E. R. A. exhibit on the plaza in Atlantic City. This bus is of the hoodless type, using the established Mack BK engine and other driving units, but with the driver located alongside the engine at the left, with the front door ahead of the front axle.

Also on display are: Two Big-Six Model BK buses, one an Interstate, and the other a rear-door City-type; one BC thirty-three-passenger City-type; one AB City-type with portions of the body cut away to show construction; two Light-Six Model BGs, one Interstate, and one City-type.

In addition to these buses there is a running display of the complete engine and driving parts of the Model BK and of the Model BC, a variety of parts panels, a photographic trip through the Bus Body plant at Allentown, and a working model of the complete hydraulic booster steering system as used on the Transit-type bus.

HERCULES EXHIBITS BUS, TAXI ENGINES AT A. E. R. A. SHOW

The Hercules Motors Corporation of Canton, O., is exhibiting a comprehensive group of heavy-duty engines specifically developed for bus and taxicab use at the A. E. R. A. show in Atlantic City.

The Hercules display, which occupies space C-351-352 in the auditorium, includes the following power plants: Six-cylinder models WXC2 4⅛x4½ inches, as arranged for twin coach; HXB, 5x6 inches; YXC, 4⅜x4¾ inches; WXC, 4x4½ inches; JXA, 3⅜x4¼ inches, and four-cylinder model OOC, 4x4½ inches.

All are completely equipped and are representative in every way of the several series of Hercules engines designed particularly for public conveyance service. A complete line of Hercules parts is also on display.

The Hercules headquarters during the convention are in the Hotel Traymore.

NATIONAL PNEUMATIC EXHIBITS BUS DOOR OPERATING DEVICE

The National Pneumatic Company is exhibiting, at Atlantic City, this week, pneumatic and vacuum door operating mechanisms designed to meet the most exacting requirements of motor coach operators.

An exhibit consisting of full size working models of pneumatic and vacuum powered bus door control mechanism can be seen at Booth No. 513 in the Auditorium.

Motor coach operators will be interested in seeing the front door control and the automatic treadle exit door, as well as the new accelerator locks, sensitive door edges, vacuum door operators and other safety devices in the exhibit.

STEWART MOTOR ISSUES NEW FULL COLOR FOLDER

Buffalo, N. Y., Sept. 29.—Stewart Motor Corporation of this city has recently put out a very handsome folder in full colors for the benefit of dealers' live prospect lists. Eleven of the company's leading models are pictured in the colors that are standard on the particular jobs. The color printing is very well done, and the folder, as a whole, is extremely attractive.

MULTIBESTOS EXHIBITS NEW LX BRAKE BLOCK

The Multibestos Company is exhibiting at the Atlantic City auditorium Latex bond molded and woven brake linings. One of the newest items in its line is the LX brake block for heavy-duty trucks and buses.

They're

TIRED

of fade-away freeze protection

Now they're using G.P.A.

The buying trend is toward *permanent* anti-freeze. Modern motorists are tired of the bother and worry of constant refillings. Sell 'em G.P.A. this year—sell 'em the kind of anti-freeze they want!

You make a good profit. And you make it *all* with *one* servicing. And, because G.P.A. can't evaporate, you can sell it before freezing weather—before the "rush."

G.P.A. is approved by A.A.A. Meets U.S. Bureau of Standards' specifications for the ideal anti-freeze. Backed up by a powerful advertising campaign—magazines, radio, newspapers.

It will pay you to push G.P.A. Radiator Glycerine.

G.P.A.

RADIATOR GLYCERINE

Produced *only* by members of Glycerine Producers' Association, 45 East 17th Street, New York, N.Y.

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

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WEDNESDAY, SEPTEMBER 30, 1931

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It Is Good to Have Lived

IN the process of evolution thirty years is just a faint needle scratch on the sands of an infinite beach. In human history, as chroniclers usually write it, with its tales of wars and earth-shaking events, thirty years may be greatly important or almost meaningless. We doubt that any other thirty years in the history of mankind has been fraught with so much achievement of really vital importance to the development of the race as have the past three decades.

You see, the average historian is so engrossed in the crash and glitter of war, the triumphs and failures of diplomacy, the political march of events, that he often fails to realize that other happenings have a deeper meaning for the individual than these events that hold the public eye. To a farmer in this country, for instance, the fact that a quarter of a mile of hard road has been built past his place to connect it with the state road beyond is a much more vital matter than a declaration of war in the Balkans. It will surprise us, if, in the ultimate history of the thirty years beginning with, say, 1900, the studious chronicler does not place the revolution in transportation as the most significant factor in the development achieved. These three decades have witnessed the coming of the motor vehicle for highway transport and of the airplane for travel through the sky.

Those of us who have followed the march of the automotive industry from 1900 can say with truth that it is good to have lived through such a period. To have watched the halting production of 4,192 motor vehicles registered in 1900 grow to 5,621,715 units in 1929 has been an inspiring experience. To have seen the motor vehicle, from a curiosity in 1900, become a household necessity, a personal transportation system in 26,000,000 American homes in 1931, has been a wonderful privilege. To watch the change that has come over American life, through the ability of most of the country's people to go hither and yon on their lawful occasions without recourse to timetables, has been a glorious thing.

To have lived when the Wright brothers made their first halting flights in their flimsy forerunner of the airplane and to have lingered long enough to see planes spanning the continent between sunup and sunset has been good. To get the faint foreshadowing that we do of the wonders that air transportation has in store for mankind is a great inspiration.

To see the automotive industry enter the great depression of 1930 (to when?) could scarcely be called pleasant. Yet it was inspiring to find our industry the leader in meeting conditions as they developed. Because they early recognized the truth and bent their sails to the prevailing winds, the automotive manufacturers are surviving the storm. And when the wind shifts they will be in a position to take advantage of the return of favorable conditions. We shall see the automotive industry leading American business out of the Sargasso Sea in which it lies becalmed.

It is a hard lesson for humanity to learn, but taking the evil with the good is part of life. C'est la vie, the French say with a philosophic shrug. If we can achieve that attitude of mind, we have gone a long way toward victory. And, when revival finally comes, we shall have the satisfaction of having fought through the most difficult period since the Civil War with American grit and determination.

He must be poor-spirited who can look back over the past thirty years, particularly over the last two or three of them, and not say: "It is good to have lived through such a period."

Design Limitation Hinders Brake Development

The following is the second installment of a paper presented yesterday at the meeting of the rolling stock division of the American Electric Railway Association, held in committee room No. 2, in the Auditorium, Atlantic City. The meeting was held under the chairmanship of Thomas H. Nicholl, chairman of the standing committee on rolling stock.

By F. C. STANLEY
Chief Engineer Raybestos Company
Bridgeport, Conn.

Road tests are very expensive but unquestionably more reliable than the present laboratory tests. Laboratory testing machines are now being built by several of the larger lining manufacturers. These duplicate road conditions to a considerable extent. They provide energy to be absorbed by a single brake of standard type applied to the shaft of a fly-wheel made up of steel discs with an aggregate weight of 10,000 pounds. Means are provided for registering the performance of the lining on this brake in making stops from various speeds with known cam pressures. We have hopes that these machines will eliminate much of the road testing.

Because brake lining undergoes chemical changes when the contact temperature rises, we have four distinct phases of performance. The first phase up to 200 degrees Fahrenheit is confined to lining containing incompletely cured or incompletely vulcanized saturant or organic binder. In this phase we have also the so-called "morning sickness," due to the action of atmospheric moisture in increasing the efficiency of the lining, so as to cause it to grab at the first application. This is rarely a fault of molded lining, and is most common in case of woven lining which is incompletely water-proofed. It can hardly be discovered by laboratory tests.

Lining containing rubber incompletely vulcanized will show a rising efficiency in this phase and will gradually lose this characteristic with accumulated mileage. Lining which has been baked or cured at temperatures up to 400 degrees Fahrenheit will show little or no change in efficiency in this phase.

The second phase is at temperatures between 200 degrees and 400 degrees Fahrenheit and variations of performance are here confined to those linings containing saturants which undergo distillation or chemical changes at these temperatures.

It is our opinion that no lining which contains such unstable saturants is suitable for brakes on motor coaches.

The third phase, from 400 to 800 degrees Fahrenheit, is that in which the organic binder of the lining undergoes destructive distillation. It is to this phase that the performance on motor coaches is chiefly confined, and it is the object of the lining manufacturer to insure uniform efficiency with maximum durability in this phase.

The fourth phase is above 800 degrees Fahrenheit at which the disintegration of abestos commences. It is this phase which we advise the operator to avoid for very obvious reasons. We have previously shown that we can more easily avoid this by lowering the weight area ratio, but advised that because of design limitations the avoiding of this phase was chiefly in the hands of the operator.

Performance of lining in the first phase is quite accurately determined by what is known as the General Motors machine. This machine tests three pieces of lining 1 inch square with centers 120 degrees apart and held at equal radial distances on a horizontal disc which is driven at constant speed. Pressure is applied by means of a hollow head resting on the lining surfaces. Pressure on this head is varied by adding or removing weights from a central spindle. It is usual to maintain a pressure of fifty pounds per square inch on the lining and the temperature of this head is maintained below 200 degrees by water circulation. Braking torque is recorded by means of a sylphon and moving tape. It is easy to calculate coefficient of friction when pressure and torque are known. In fact, the coefficient of friction is the only variable influencing the brake torque. Durability is expressed in fractions of cubic inch of lining removed per horse power hour. This machine has lately been modified by General Motors engineers so that a temperature of 350 degrees Fahrenheit is maintained in the head. This, we understand, has been done by the circulation of hot oil.

This modification would bring the machine into the second phase of lining performance, whereas water cooled it remains in the first.

Three other objections are made to it. It does not test a curved segment as applied to a brake shoe and it fails to retain dust as lining does when segments are longer and spaces between lining segments are small. Pressures employed are somewhat below present brake pressures.

This machine, however, has been an important factor in lining development.

The Bendix button machine was designed to obtain coefficient of friction at various pressures and to reveal the characteristics of the lining through the second phase of its performance. The machine is oper-

(Continued on Page 7)

COMING EVENTS

SEPTEMBER

26-Oct. 2—**Atlantic City, N. J.** American Electric Railway Association, annual meeting.
30-Oct. 2—**Jamestown, N. Y.** Annual convention New York State Automobile Association, Hotel Jamestown.

OCTOBER

1-11—**Paris, France.** International Automobile Salon.
2- 3—**Houston, Tex.** American Institute of Mining and Metallurgical Engineers petroleum division meeting.
7- 8—**Detroit, Mich.** Society of Automotive Engineers, national production meeting.
12-13—**Pittsburgh, Pa.** Pennsylvania Automotive Trades Association, convention.
12-16—**Chicago, Ill.** National Safety Council.
14-16—**Pittsburgh, Pa.** Society of Industrial Engineers, convention.
14-15—**Albany, N. Y.** New York Automobile Dealers Association, convention.
15-17—**Pittsburgh, Pa.** American Gear Manufacturers Association, convention.
15-24—**London, England.** International Motor Exhibition, Olympia Hall.
19-22—**Chicago, Ill.** National Hardware Association, convention.
22-28—**Prague, Czecho-Slovakia.** International Automobile Exposition.
22-28—**Prague, Czecho-Slovakia.** International Automobile Exposition.
23—**New York City.** American Iron and Steel Institute, convention.
27-28—**Chicago, Ill.** American Railway Association, Motor Transport Division meeting.

NOVEMBER

5-14—**London, England.** International Commercial Motor Transport Exhibition, Olympia Hall.
10-12—**Chicago, Ill.** American Petroleum Institute, annual meeting, Hotel Stevens.
28-Dec. 9—**Brussels, Belgium.** Automobile Salon.
29-Dec. 5—**New York, N. Y.** Automobile Salon, Hotel Commodore.
30-Dec. 4—**New York City.** American Society of Mechanical Engineers, annual meeting.

DECEMBER

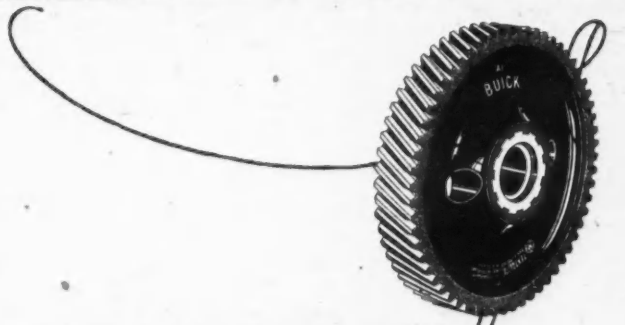
7-12—**Atlantic City, N. J.** Motor and Equipment Association and National Standard Parts Association, Joint Trade Show.
9-11—**Atlantic City, N. J.** American Institute of Chemical Engineers, meeting.

JANUARY

9-16—**New York City.** National Automobile Chamber of Commerce, National Automobile Show.
9-17—**Los Angeles.** Annual Automobile Show of the Los Angeles Motor Car Dealers Association.
10-13—**Chicago.** National Wheel and Rim Association, annual convention, Edgewater Beach Hotel.
11-14—**Detroit, Mich.** American Road Builders Association, twenty-ninth convention and show.
16-23—**Newark, N. J.** Newark Automobile Dealers' Association's annual show.
16-23—**Buffalo, N. Y.** Annual automobile show of Buffalo Automotive Trade Association, Inc., 174th Regiment Armory.
17-23—**Milwaukee.** Annual Automobile Show, Milwaukee Automotive Trades, Inc.
22-30—**New York.** National Motor Boat Show, Grand Central Palace.
23-30—**Minneapolis.** Annual Automobile Show of Minneapolis Automobile Trade Association.
30-Feb. 6—**Cleveland.** Annual Automobile Show of the Cleveland Automobile Manufacturers and Dealers Association, Public Auditorium.
30-Feb. 6—**Chicago, Ill.** National Automobile Chamber of Commerce, National Automobile Show.
30-Feb. 6—**Chicago, Ill.** Automobile Salon, Hotel Drake.

FEBRUARY

6-13—**St. Paul.** Annual Automobile Show, St. Paul Automobile Dealers, Inc.
13-20—**Kansas City, Mo.** Annual Automobile Show, Kansas City Motor Car Dealers' Association, American Royal Building.
13-20—**Los Angeles, Cal.** Automobile Salon Hotel Biltmore.
22-March 5—**San Francisco, Cal.** Automobile Salon, Palace Hotel.



TEXTOLITE
TIMING GEARS

No Novelty

The novelty of car owning and driving is gone. The car has become just one of those essentials to be bought on a business basis.

The public may not know the details of design or manufacture which make one car more satisfactory than another, but they know what they want—40,000 to 50,000 miles for their own use, and still a good used-car value.

There is no compromise with accuracy in a good gear drive. It is a token of good manufacture throughout the car.

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GENERAL ELECTRIC
GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y., SALES OFFICES IN PRINCIPAL CITIES

Handling Bus Materials

The following paper on "Handling Bus Materials From the Users and Vendors" Standpoint" was presented at the annual convention of the American Electric Railway Association in Atlantic City today:

By W. E. SCOTT
Superintendent of Supplies Philadelphia Rapid Transit Company

THE writer has found it necessary to draw upon the vendors themselves for their viewpoint, never having been fortunate enough to be a member of their team, and therefore must credit them with any R. P. M.'s or backfire which appeals to his audience on the presentation of the vendors' views.

In justice to his training, he must therefore laboriously proceed with that which he is most familiar—his own side of the house. Rather than leave you with only one person's opinion, I have attempted to make a hasty survey of what generally is being done and the consensus of opinion of what is thought good practice. Therefore, this is not a presentation of one person, nor his recommendations.

Starting with material organizations, it is recognized that some one is vested with material responsibilities. With the smaller operators, the demands being likewise, a storekeeper is superfluous. However, storekeeping does exist, even though it is but a part of some one else's job. On the other hand, we have the large companies, either direct bus operators or operators which co-ordinate either electric or steam car operation with their buses. Invariably we find that their material troubles have been shouldered by their stores department and that the officers of this department have ably carried on the work of servicing the buses with a control of stock investment which only a well-founded organization can give. The electric and steam stores organizations having learned the pitfalls of obsolescence, uncontrolled investment from post-war times, are in a position to render a fuller and more comprehensive study of bus material requirements and bus material handling.

Whether steam, electric cars or buses—the old A B C of the stores department still exists—serve the operator—keep the line running—but don't forget the investment. Regular demands must be protected. emergency parts must be stocked and minimums do not put gaskets on the engine. Certainly a control feature must be established, and after perusing "Bus Transportation" and its famous question No. 72 I would even hesitate to audibly express an opinion for one method over another. The Area Manual contains an adopted plan of stock control, and it would seem fitting that until such time as this plan is revised or discarded that the speaker should refer only to that plan of operation. Many operators endorse its use, and its scope includes:

1. The sub-division of material into classes, each containing material of a similar nature.
2. The actual review of each item by physical count at least once each month.
3. The actual review of consignments contracted for.
4. The summary of stock on hand and material on order and the preparation of requisitions for purchase of future requirements at least once each month.
5. The compiling of statistics by classes, from the dollar-and-cents view, to determine the efficiency of operation.

The physical handling of bus materials, our little survey finds, is generally divided into four groups, each of which has its peculiar problems.

1. Gas and oil.
2. Tires.
3. Units.
4. Repair parts.

In considering group No. 1—gas and oil—the railway storekeeper now enters into a new field. He forsakes his former problems of solid storage, such as rail, ties, wheels, etc., and enters a field of liquid storage and transfer. Each operator attacks his problems in a manner best suited to conditions. Operator No. 1 has found it to be economically correct to erect a large bulk storage plant, with a capacity sufficiently large to handle steamer tank loads direct from the oil field (the volume of gas consumed by this operator making this practical) and distribute from this central bulk storage by tank trucks direct to garages and filling stations. To attempt a storage facility of this sort, the operation must have a consumption to compete and better the charge made by the oil companies for this service.

Operator No. 2 is able to locate his bulk storage at garage points adjacent to railroad sidings and, in some cases, making delivery with his own equipment to outlying service points or picking up from gas service stations fuel which cannot be procured from the central plant.

Operator No. 3 is procuring his gas from contractor to his garages, with contractors' vehicles, in bulk lots.

The majority of operators are buying specification fuel, and it is very essential that chemical tests be made of fuel furnished, to ascertain its correctness as per specifications. Most storekeepers recognize the abuses that can be had by introducing foreign substances into gas and guard against them.

Modern garages and service stations are either equipped with aqua or electric pumps these days for dispensing fuel. Calibration of measuring gauges must be made frequently to accurately gauge gas dispensed.

Oil is usually contracted for delivery as required, to garages and service stations. Quite a few store organizations maintain oil reclamation plants, where the used product is thoroughly cleansed and brought back to its original state. This practice seems to have passed the experimental stage, and several companies report substantial savings in lubrication costs through its use.

Group No. 2—Tires, in many operations are, today, not a problem for the storekeeper, inasmuch as tires are being mounted and used on a mileage basis by the contractor; the problem of storage being his, together with the mounting. But for those operators who are faced with storage of their own rubber, it is essential that all precautions are taken to insure against aged rubber and that the stock of rubber is intelligently measured by the turnover.

Group No. 3 -Bus units, such as engines, rears, front axles, transmissions, clutches, etc., storage facilities for the ease of handling these units should be provided. Operator No. 1 has prepared special skid platforms for ease of movement throughout the shop to storage house. These platforms are also provided with special arrangements for lifting chains to avoid damage to the unit. Service trucks are also provided with hoists for ease of handling and unloading at the garages.

Group No. 4—Repair Parts—Standard storeroom arrangements, such as bin cases, racks, etc., should be provided. Of survey made, it is found that both wood and steel cases are in general use; however the daylight steel cases are found to be more generally used and certainly afford a saving in space, better light, lower costs, tend toward better housekeeping and permit a more accurate count of stock. Special cases to house many items must be provided and one's individual problems cannot be answered by a general rule. Above all else, the proper identification of material stored must be made. Too much stress cannot be given to this, similarity of material is greater in automotive supplies and changes and advancement are constantly being made and identity clear and intelligent should be paramount at all times. Avoid costs by loss of time through poor or incomplete identities. Ask your supplier to help you, let them start the shipment properly and remove the guesswork.

The vendor has his problems, and in listening to him the writer felt very sympathetic, for his problems, in a general way, are ours all over again. He provides a system of control, based on sales. He cannot af-

(Continued on Page 6)

MORE THAN
$60,000,000
has been invested by thousands of operators in White Coach equipment. Every question you want to ask about a motor coach has been answered by a White on the job. What you want is the dependability and steady earning capacity of a White. When you boil down the motor coach facts you'll *buy a White*. The White Company, Cleveland.

WHITE COACHES

See the White Coach and Truck Exhibit in space C-311 A. E. R. A. Convention

Two Sides of Material Handling for Buses

(Continued from Page 5)

ford to tie up a lot of dollars in inactive material, and his turnover must also be consistent with his investment. May I now give you the vendors' views from two sources. My good vendor, No. 1, states: "My company does not believe that material problems are yours; we think that they rightfully belong to us. Your material requirements should be handled by one of our service departments and go from our shelves to your buses. Our outfit is large and there is maintained throughout the states close to 100 service stations where we are always ready to serve your part requirements." He further stated that this method of procedure was found by operating companies to be one economically sound, and quoted investment figures very low. Their practice of handling the parts service was direct factory delivery to parts service, thence to consumer.

Vendor No. 2 stated that his company maintained five service parts depots, placed at strategic points in the country and serviced with parts by the general depot, located at the factory. Each of these depots maintained a twenty-four-hour service for customers' use. His recommendations with regards to material was that supply departments of the bus operators maintain their own storerooms and that material be ordered through these five general depots in quantities based on distance that the individual company was in freight delivery days from the delivery point. He advocated that the purchaser give the supplies department full information not only in description, but specify also the delivery date required. This particular feature was stressed by him as being one that would enable intelligent shipping and place the material in your hands when required at minimum expense.

Both gentlemen outlined that, when orders were received, any part they were unable to fill from local stock was back-ordered to their factory, and, when shipped, identified from the factory as a due quantity and expedited to the user. They each agreed that their service parts departments maintained organizations whose sole interest was to check with you, as to class of material, help you with your troubles, aid you in properly securing material and assist you with advice as to its proper storage. They each pointed out that certain materials needed special care in storing, and stressed that parts such as sleeves, crankshafts, cylinder blocks and pistons should be stored in a manner that was similar to the position that each occupied when in the engine. The subject of gaskets was discussed and an opinion rendered that under no circumstances should this class of material be stored other than flat, even though this is contrary to general practice. Distortion and stretching are the usual outcome of other than flat storage.

Materials that need protection against rust are now all rust proof before leaving factory, and there should be little or no necessity for further protection other than suitable storage. The matter of packaging is now being studied in an extensive way by one of these companies, and even now a large representative part of their material is being packed in standard lots, which enable the mechanic to receive for installation complete units as packaged direct by the factory.

THREE INSURANCE MEASURES FILED IN MASSACHUSETTS

(Continued from Page 1)

sion as called for in the other measure.

The measure to repeal the present law and establish a financial responsibility act was filed by Representative Victor F. Jewett of Lowell for the Massachusetts Chamber of Commerce. It is the same as the Long bill considered by last spring's Legislature, with a few changes.

The other two measures were filed by Representative J. Walton Tuttle of Framingham on behalf of Maham E. Nash of that town. The one to create the accident commission would create such a board to consist of a chairman and six associate commissioners, to be named by the governor with approval of the executive council. Appointees would be designated as justices of the peace by the governor and would have to be active attorneys-at-law. The pay would be$6,500 for the chairman and $6,000 for each commissioner. The commission would name its clerk, to receive $4,000. All of these appointments would be for four years.

The commission would appoint referees in each county, who would be authorized to perform, in cases assigned to them by the commission, with full powers of the commission, and would be paid on a per diem basis. The clerk would have powers of a clerk of a court of record.

The commission itself would be a court of record and have a seal. It would have power to compel attendance of witnesses, punish for contempt, enforce judgment of execution and have other court powers. It would have exclusive original jurisdiction of actions in which damages were sought for injury or death, or damage to property resulting from negligent automobile operation. It would prescribe its own rules and regulations of conduct, consonent with the laws.

The Massachusetts Chamber of Commerce financial responsibility measure would require that insurance policies or bonds be provided by persons convicted of motor law violations. In addition, persons required to take out insurance would be assessed $25 additional to the regular registration fee imposed annually by the state. After the expiration of three years, on good behavior, this could be discontinued.

In event of an accident, an aggrieved person could petition the registrar that he require the other party to funish surety tot he amount of $10,000 and in event of such surety not being furnished, after the order of the registrar, the operating registration would be revoked. Revocation also would follow in case of unsatisfied judgements. Operator of a car not insured after the registrar's notice would be penalized by maximum fine of $1,000 or imprisonment for thirty days. Insurance rates charged by companies would continue to be subject to approval of the state insurance commissioner.

Hill Stresses Bus Operators' View at N. A. M. B. O. Session

(Continued from Page 1)

any way strengthen the protection of the public interest or improve the quality of service rendered.

Mr. Hill, discussing the taxation fo common carrier motor buses stated they have in no way indicated unwillingness to shoulder their fair share of the highway burden but are actively co-operating in public efforts to arrive at some understanding of what might constitute a fair share.

Of the total motor vehicle taxes collected in 1930, which amounted to $769,614,410 in license fees and gasoline taxes, the seventeen one hundredths of one per cent. constituting the common carrier motor buses contributed 4 per cent. of the total receipts, or 23.4 times its per vehicle share.

The argument advanced by the railroads that buses can maintain a lower fare rate because they use the public highways was attacked. Mr. Hill pointed out that reduced base fares instituted by several western railroads did not reflect increased passenger revenue.

Concluding, Mr. Hill stated that it was felt that should an increase in highway revenues be necessary the increase should be horizontal for all motor vehicles in a nominal amount, rather than a special levy against any particular user. There is no justification in fact for the contention that the taxes paid by the motor bus are not compensatory for the use made of the highway or proportionate to the amount paid by other users. Any further attempts of rail interests by legislation or otherwise to increase bus taxes to protect rail revenues by bringing about a more comparable fare per mile, or that the bus should be taxed because of its ramage to roadbed surface, are not in the public interest, but selfishly propagated to embarrass what is considered a competitive public utility. Increase in bus taxation ultimately would fall on that great percentage of the country's population who cannot afford the use of privately owned vehicles and those located in communities which have no other means of transportation than that furnished by highway carriers.

Senator Alben W. Barkley of Kentucky addressed the luncheon gathering on "The Regulation of Motor Buses as Public Utilities," the senator pointed out that the functions performed in its service to the public placed the motor bus in the public utility field and makes it subject to such regulation and supervision as may be in the interest of the public and fair to itself. "It would be difficult to conceive of greater chaos or injustice to the people generally and among the public institutions themselves," the senator said, "There would ensue if the power to regulate their practices, charges, performance of their duties to the public did not exist or were not exercised."

Figures were given showing the growth in railroad passenger traffic from 1890 to 1920 by decades and the decrease from 1920 to 1929. The decrease it was brought out could not be fairly attributed to the motor bus as a competitor. Much of it was due to the increase in the number of private passenger automobiles but a portion of it was naturally attributable to the existence of the motor bus. The number of commercial buses in operation in 1920 was 10,000. This was increased to 95,000 in 1930. Of this number 45,000 were school buses and deducting the number of buses operated by electric railway lines and steam railway systems in connection with their roads there remain 32,500 commercial buses in operation on the highways of the country. For the past six years the state utility commissions have been urging Congress to enact legislation providing for the regulation of interstate buses. In all the states except Delaware, motor buses used on the highways interstate are subject to regulation as other public utilities are. While practically add state laws require the issue of a certificate of convenience and necessity before bus lines may be established no such requirement is necessary for the establishment of a bus line which crosses a state boundary.

This can result in injustice to the people and to established intrastate lines if a competitive line is established with a terminus only a few miles across a state boundary, it was said. There has grown a unanimous sentiment in all quarters, even including the bus operators for Federal regulation. In the last two sessions of Congress the subject was considered but action failed because of differences in the Senate over details of the measure. In addition to bus transportation Congress as well as state utility commissions will be compelled to deal with truck transportation. There is no serious difference of opinion relative to the necessity for ample provisions protecting the public as to service regularity dependability, financial responsibility and guarding against monopoly.

The senator was emphatic in his belief that a certificate of convenience and necessity should be required for a bus line operating in interstate commerce. The same safeguards which regulate railroads in the public interest and in fairness and justice to those who embark in the field of transportation.

The afternoon sessions were given over to committee reports and an illustrated talk on how to sell bus rides by John B. Walker, sales manager Greyhound Managament Company.

Officers and directors of bus association were elected as follows: A. M. Hill, re-elected president; R. T. Whiting, re-elected vice-president, and E. D. Merrill, treasurer.

FEDERAL ADDS DUAL DRIVE SIX WHEELER

(Continued from Page 1)

lower initial investment, savings in taxes, insurance, gas and oil, tires and depreciation. The dual drive is said to be particularly adapted to operation in sand, mud, deep snow or under other conditions which require maximum traction and it materially broadens the field of practical six-wheel operation.

Among the important patented features of this model are the spring suspension and reservoir method of lubricating trunnion pins. Power is applied to the four rear wheels through two bevel drive full-floating rear axles with oversize differentials and driving gears.

Tire economy is said to be accomplished by the unique arrangement of the spring suspension. There are two bearings on each side—one above and one below the axles attached at the center to forked bearing brackets mounted on a short trunnion shaft supported from the frame side rail.

The upper spring on one side is shackled at the forward end, while the lower spring on the other side is shackled at the rear. With this construction there is provided not only considerable flexibility in the tandem unit, but there is also a natural tendency for the axles or wheels to "track" each other when rounding curves, it is claimed.

OHMER FARE REGISTER HAS NEW TICKET PRINTING DEVICE

One of the interesting improvements shown at the A. E. R. A. convention is found in the No. 80 Ohmer Ticket-Printing Register for ticket offices. These registers are now made to print on the ticket issued, as well as on the record within the machine, not only the name of the station from which the ticket is sold, but also the name in full of destination station, with a capacity for printing as many different destinations as desired.

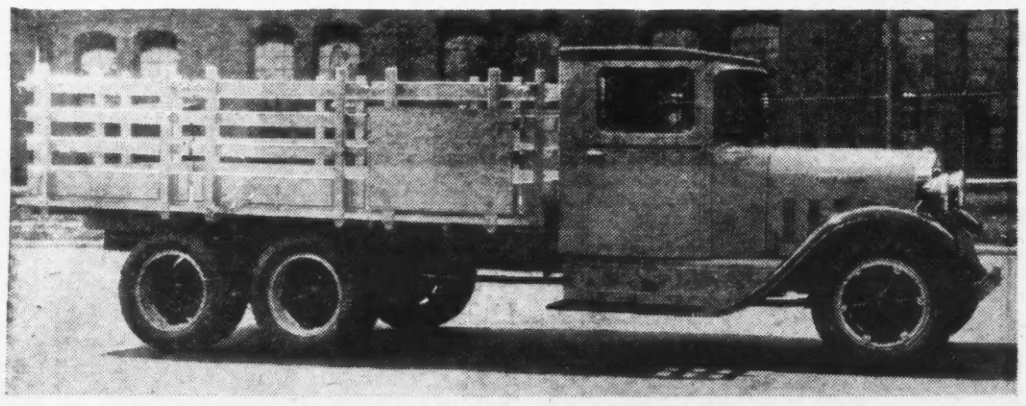
There is also shown the Ohmer-Kienzle vibracorder, which produces a complete seven-day record of the movements of any motor vehicle. There is also shown the Ohmer-Kienzle tachograf, which not only records the running time and idle time, but also records the exact speed at which the bus or other vehicle was operated at any time during the day or night. There is on display a full line of Ohmer recording fare registers and ticket-printing registers for motor coach and electric railway service.

B. A. SPILLANE NAMED

Philadelphia, Sept. 29.—B. A. Spillane has been appointed district manager of the Philadelphia district by the De Soto Motor Corporation. For the last three years Mr. Spillane has been zone manager in this city for another large manufacturer.

B. C. HELM JOINS DE COZEN IN NEWARK

Newark, N. J., Sept. 29.—B. C. Helm, formerly district sales director of the Chrysler Sales Corporation, specializing on the Chrysler Imperial eight, is now attached to the De Cozen Motor Company, Chrysler distributor, in a similar capacity.



NEW FEDERAL dual drive six wheel truck, equipped with either four or six cylinder engines.

SEEK STRICTER LAWS ON ILLEGAL CARRIERS

Sacramento, Cal., Sept. 29.—A state-wide drive against motor carriers operating upon highways of California without legal authorization has been ordered by the Railroad Commission.

E. T. McGettigan, head of the Department of Automotive Transportation, was instructed by the commission to invite representatives of the California Highway Patrol, State Board of Equalization, the Motor Carriers Association, and the State Labor Commissioner to meet with him to devise plans for more aggressive and complete enforcement governing automobile stage transportation along the highways of the state. In particular the commission desires to take advantage of a law passed by the last Legislature under which the California Highway Patrol is empowered to enforce these laws.

Parts Makers' Activity May Indicate Revival

(Continued from Page 1)

self a thing of real beauty, contributing in large measure to the smartness and trimness of the whole ensemble.

"The first unit of our English plant located in Dagenham, Essex, has just recently been completed and we are now in production there. This plant is intended to care for the business not only of England but of all the European countries.

"American methods of production carried out under men who thoroughly understand them are in vogue in this plant and we anticipate a very considerable increase in the business from these sources.

"All in all, I would say that from where we sit it looks most certainly as if business is definitely and surely on the up-grade for Kelsey-Hayes in particular and for the whole industry in general."

Road and Laboratory Tests Of Brake Linings

(Continued from Page 4)

ated at a constant speed and pressures are increased from 25 pounds to 150 pounds with increments of 25 pounds. The torque resulting from each application is indicated on a dial, which converts it into coefficient of friction.

The surface area of the button is 1 quare inch, therefore unit pressures are from 25 pounds to 150 pounds per square inch.

Eight series of six applications with increasing pressure are made, so that we have a limit on temperature, as the application at 150 pounds is followed by one at 25 pounds. The duration of the application is 5 seconds and the interval between applications is 25 seconds.

This machine is open to the criticism that it fails to test the curved segment. We are able, however, to flatten the curved segment and afterwards test it. Friction losses in the machine have an important relation to results and we have been unable to get concordant results on the same lining tested on various machines of this type. It has been suggested that a sylphon be placed beneath the test piece and thus remove all influence of the friction of the drive from the effective pressure.

Durability is measured by the depth of penetration of the button after a definite number of applications of a like character. The machine is valuable to detect a tendency of the binder to fail at high temperatures or pressures.

A special machine has been developed for testing lining on the hydraulic brake. This machine as usually applied tests lining at temperatures below 300 degrees or up to about the middle of the second phase. The machine records on a circular chart the relative brake torque and the line pressure in each application.

Durability is expressed by average decrease in thickness per number of applications.

The Bendix dynamometer and the dynamometer now being built and installed by several large lining manufacturers represent attempts to bring road conditions into the laboratory. They duplicate the kinetic energy of the moving vehicle by providing a fly-wheel of such weight and diameter that at definite car speeds it supplies the same quantity of kinetic energy to be absorbed by a single brake, that is one-fourth of the energy of the moving vehicle.

These machines test the brake as a unit in a drum. Applications may be continuous or intermittent. During continuous applications in the so-called bleeding tests temperatures run up to 500 deg. Fah.; coefficient of friction is not determined, as lining characteristics cannot be separated from brake characteristics. Torque variations, temperature and cam torque are recorded by the operator. The ratio of cam torque to brake torque indicates the brake efficiency with the type of lining being tested.

The machines test lining in the third phase and reveal such defects as fading with rising temperature.

There are features of road testing which are difficult to imitate in the laboratory. Road dust of various kinds has an important effect on lining performance. We can hardly duplicate varying conditions of humidity in the laboratory. The laboratory support for the brake and flywheel is rigid, while on the road we have flexible supports. It is impossible to imitate in the laboratory all variations of power absorption which we have on the road. The radiating factor on the road is different and the work done by the brake is diminished by tire slippage of unknown amount.

There are also advantages of laboratory testing. We have in the laboratory a machine in which energy input and output can be accurately measured, and we have accurate temperature control.

An attempt has been made by us to take the laboratory out on the road or at least apply laboratory methods to road tests. By applying the Hasler-Tell recorder to the test car we are actually able to get a record of the stops made, the change of speed, the rate of deceleration and the duration of the application. We propose to add to these a co-ordinating record of pedal pressures and drum temperatures, also a record of the wheel travel during braking to enable us to determine the amount of slippage. From these facts, with the known weights of the vehicles, it is possible to calculate the rate of power absorption in each application. If we accept the principle that durability can be expressed as h. p. hours per 1-1000 inch average wear, we have a means of comparing various linings as used on the brakes for which they were made.

The charge has been made against the lining manufacturers that they have depended on their possible customers to do the testing necessary for the development of bus lining.

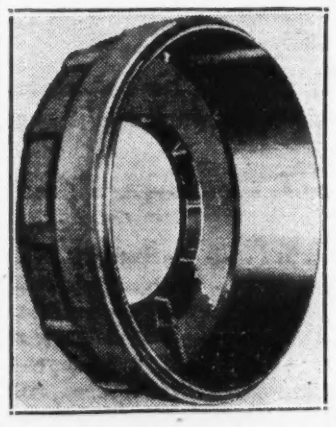
This charge may have some foundation in cases of some of the smaller factories and those recently entering this field. Salesmen have reported that some bus companies have refused to buy lining, as enough had been supplied gratis for their needs.

We have been convinced that brake lining testing should be carried out with all the controls possible, and that no single type of lining can be made which will meet all requirements.

Some of us are taking this matter seriously enough to purchase and keep vehicles of loaded weight up to 24,000 pounds constantly on the road making brake applications on which all possible information is recorded.

We expect to be able to predict with accuracy that a type of lining, after having been thoroughly standardized in production, will show a durability which may be expressed in h. p. hours per 1-1000 inch average wear, provided its use does not extend into the fourth phase described, in which surface temperatures exceed 800° F.

NEW GUNITE AIR BLAST BRAKE DRUM



The Gunite Corp., Rockford, Ill., in Atlantic City, is featuring the new Gunite air-blast brake drum, shown above, which represents a departure from conventional design. Radial ribs or fins cast on the inside back face of the brake drum are covered with a thin plate, forming a centrifugal fan that draws in cool air at its smalest diameter and blows it out at its largest diameter between the drum and the lining, over the brake shoe and upon the tires.

This method of cooling the brake parts at the hotest points rather than on the outside of the drum is designed to improve braking performance and also to protect the tires against overheating. The air blast not only dissipates heat, but blows out all traces of dust and grit which may have collected inside the drum. The Gunite air-blast drum will be shown in action during the show.

The exhibit also includes other Gunite cast brake drums to show the completeness of the line.

ADDS TO FACILITIES

Bloomfield, N. J., Sept. 29.—In conjunction with the automobile electrical shop and service offered by the Scudder Auto Electric Company at 141 Watsessing Ave. full mechanical service has been installed in charge of William Armitage.

You, Too, Can Save

S. A. E. Production Meeting Issues

October 7th and 8th

Papers and news of the production meeting while the meeting is in progress will make these issues extremely valuable to the industry. Every executive in administration, engineering and production is turning his attention toward making savings in machinery and methods. These issues full of information, these men want delivered to them before any other medium, should prove extremely valuable.

Automotive Daily News will distribute copies of its October 7th and 8th issues at the Production Meeting.

You, too, can save in selling cost by reaching these men when they want to be reached, when they want to read and discuss subjects that will enable them to effect savings in production. You, too, can save by advertising to them in the production issues of Automotive Daily News.

Because of the complete, accurate and timely news coverage the reader interest of the publication is very high. Visibility of advertising copy is assured regardless of size.

News of the day on the day that it is still news.

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Among Recent Appointments Are:

Name	Territory
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Capital City Garage	Bismarck, N. D.
Cowles Tolman & Sons	New Haven, Conn.
De Vaux Walter Motor Co.	Kankakee, Ill.
Ehlers Motor Co.	McCook, Neb.
Gaither Motor Car Co.	Youngstown, Ohio
Hershey De Vaux Motor Co.	Greenville, Ohio
Irwin's, Inc.	Seattle, Wash.
Locke Motor Co.	Pierre, S. D.
Mock Motor Co.	Mt. Carmel, Pa.
Otwell Motor Sales	St. Joseph, Mich.
Port Jervis Auto Co.	Port Jervis, N. Y.
Quinby Auto Co.	Florence, Colo.
Seggebruch Buick Co.	Chicago Heights, Ill.
Steinke Auto Co.	Keystone, Iowa

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